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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,293	03/25/2005	Manfred Hubinger	HUBINGER, M. ET AL 1	4663
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WILLIAM COLLARD COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576				
EXAMINER KERNS, KEVIN P				
			ART UNIT	PAPER NUMBER
			1725	

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/529,293	Applicant(s) HUBINGER ET AL.	
	Examiner Kevin P. Kerns	Art Unit 1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/25/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed March 25, 2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. However, complete copies of the three missing foreign patent references (GB 2 118 524, JP 8-90481, and EP 0 352 576 -- including English abstracts of the last two references) have been provided by the examiner and placed in the application file, and the information referred to therein has been considered.

2. The information disclosure statement filed July 13, 2005 fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list; (4) a column that provides a blank space next to each document to be considered, for the examiner's initials; and (5) a heading that clearly indicates that the list is an information disclosure statement. The information disclosure statement has been placed in the application file, but the information referred to therein has not been considered.

In this instance, the IDS of July 13, 2005 includes only two introductory pages without a list of references. If the applicants submitted more than two pages in this IDS, then they are requested to provide these additional (missing?) pages.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "contacting or switching element(s)" recited in claims 14 and 23 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

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informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to because reference numbers "29" and "30" should be deleted from Figure 1, as "29" and "30" are denoted as a "torch handle" and a "fastening means", respectively, in Figure 3. In addition, reference number "31" in Figure 4 should be deleted, as this instance of "31" is not directed to any specific structure. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In this instance, the abstract recites the legal terms "comprising", "means", "consisting of", and "consists of". Also, the abstract recites phrases that can be implied, including "The invention relates to", "The aim of the invention", and "According to the invention".

6. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.

- (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
 - (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
 - (i) DETAILED DESCRIPTION OF THE INVENTION.
 - (j) CLAIM OR CLAIMS (commencing on a separate sheet).
 - (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
 - (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

In this instance, the disclosure lacks specification headings.

7. The disclosure is objected to because of the following informalities: on page 2, 2nd paragraph, all references to claim numbers (e.g. "subclaims 2 to 13", which have been cancelled in the preliminary amendment) should be deleted from the specification, as claim numbering often changes during prosecution of applications. On page 5, 4th line, replace "20" with "10" after "torch". On page 5, 3rd line of the 3rd full paragraph, replace "30,31" with "31,32". Corrections and/or clarifications are required for these and other errors that occur throughout the specification.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 14-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to independent claim 14, this apparatus claim is generally written in narrative format, rendering the claim indefinite. This apparatus claim should be written to distinctly set forth positive, interrelated structural limitations.

With regard to claim 14 (3rd and 4th lines), the phrase "being designed to be" is indefinite, as it broadly recites an optional function of being "connected". It is suggested to replace "being designed to be" with "being" to more distinctly define this limitation.

With regard to claim 14 (3rd and 5th lines from the end of the claim), both instances of the phrase "will be" are indefinite, as "will be" broadly recites optional functions of being "activated or deactivated" and "transmitted". It is suggested to replace "will be" with "is" in both instances to more distinctly define these limitations.

Claim 14 recites the limitations "the connection" and "the lifting". There is insufficient antecedent basis for these limitations in the claim.

Claims 21 and 22 recite the limitation "the external ring". There is insufficient antecedent basis for this limitation in the claims. It is suggested to change the dependencies of these claims from claim 14 to claim 20, which properly recites "an external ring".

Claim 22 recites the limitations "the fixation" and "the aid". There is insufficient antecedent basis for these limitations in the claim.

Claim 23 recites the limitation "the projections". There is insufficient antecedent basis for this limitation in the claim. It is suggested to change the dependency of this claim from claim 14 to claim 21, which properly recites "several projections".

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 14-24 insofar as definite (in view of the 35 USC 112, 2nd paragraph rejections) are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 8-90481 in view of GB 2 118 524.

JP 8-90481 discloses an external contact detecting device, including a switch-off (shut-off) box (Figure 4b) for a welding torch 4 (Figure 1) mounted on a robot system (Figure 2), in which the switch-off box (see abstract and the international search report, which cites JP 8-90481 as the closest prior art) comprises coupling means (3,5,7,9,10) mounted on a bearing plate 6 in a housing 2 of a body of the welding torch 4, such that

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coupling means (3,5,7,9,10) are connected to the torch body connected to a hose pack 23 (Figure 3); two oppositely arranged openings in the housing, such that the housing is comprised of a projection on one side and at least two parts (including an insulating external ring in the intermediate portion of the housing) attached by coupling means in the form of bolts and including a top bearing surface (supporting surface) of the tool side housing 3 (Figure 4a) to couple the housing parts to each other and the torch body and the hose pack, with the supporting surface of tool side housing 3 providing both punctual contact with the housing and connection to the contacting/switching elements, in the form of switch 11 of Figures 1, 3, and 4 (abstract; paragraphs [0002]-[0010] of Japanese text; and Figures 1-4). JP 8-90481 does not specifically disclose that the supporting surface, when lifted from the housing, is operable to activate and/or deactivate the contacting/switching element, and thus transmit a signal from the contacting/switching element to an interfaced control device or the robot system.

However, GB 2 118 524 discloses an industrial robot that includes a welding torch, in which the welding torch 24 is supported to be free from positional deviations during operations of the robot R while being capable of being tilted and slidably moved with respect to a movable unit of the robot R, such that a supporting surface of the coupling means is operable to be lifted from a portion of the housing (cap member 15) via spring presser 14, sleeve 18, compression spring 20, and flexible guide 21, to provide detection of welding position by a single detector 25 in the spring presser 14, and thus activate and/or deactivate the contacting/switching element, resulting in transmission of a signal (and a potential abnormal state) from the contacting/switching

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element to an interfaced control device on the robot system, in which these features are advantageous for providing the welding torch with the capability of being freely displaced in acting directions of external forces without a possibility of damages to various parts and components (abstract; page 1, lines 5-11 and 109-130; page 2, lines 1-42 and 80-130; page 3, lines 1-130; page 4, lines 1-47; and Figures 3-10).

It would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to modify the external contact detecting device, including a switch-off (shut-off) box for a welding torch mounted on a robot system, as disclosed by JP 8-90481, by using the industrial robot that includes a welding torch that includes the supporting surface operable to activate and/or deactivate the contacting/switching element, and thus transmit a signal from the contacting/switching element to an interfaced control device or the robot system, as taught by GB 2 118 524, in order to provide the welding torch with the capability of being freely displaced in acting directions of external forces without a possibility of damages to various parts and components (GB 2 118 524; abstract; page 1, lines 109-126; and page 2, lines 30-42).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. EP 0 352 576 (listed in the IDS of March 25, 2005 but without a copy of this reference) is also cited in PTO-892.

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kevin P. Kerns whose telephone number is (571) 272-1178. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin P. Kerns
Primary Examiner
Art Unit 1725

Kevin Kerns 11/10/06

KPK
kpk

November 10, 2006